

**REMARKS**

The above amendment with the following remarks is submitted to be fully responsive to the Office Action of October 3, 2003. Reconsideration of this application in light of the amendment and the allowance of this application are respectfully requested.

Claims 56-88 were pending in the present application prior to the above amendment. Claims 56, 71, 86, and 88 are independent claims. In response to the Office Action, claims 56, 57, 60, 61, 71, 72, 75, 86, 87, and 88 are amended to correct clerical errors and to more clearly claim the invention. Therefore, claims 56-88 are now pending in the present application and are believed to be in proper condition for allowance.

Initially, the Applicants acknowledge with appreciation, the Examiner's indication of allowable subject matter in claims 61 and 76 if rewritten in independent form to include all the limitations of the base claim and any intervening claims.

**112 rejection**

Referring now to the Office Action, claims 56-85 are objected to because of various informalities. By the amendments to claims 56, 61, and 71, Applicants believe these objections are now moot.

Claims 57-64, 72-79, and 86-88 are rejected under U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, claims 57 and 72 are rejected for the limitation "the bus events". Claims 60 and 75 are rejected for the limitation "tunneled request". Claims 86 and 88 are rejected for the limitation "the interface". Claim 87 is rejected for the limitations "similar bus" and "similar bus device". Applicants have replaced "similar bus" with "a bus of the same type" and "similar bus device" with "a bus device of the same type". By the amendments to claims 57, 60, 71, 75, 86, 87, and 88, Applicants believe these objections are now moot.

Claims 58 and 59 are rejected since they are dependent upon claim 57, claims 61-64 are rejected since they are dependent upon claim 60 claim 73 and 74 are rejected since they are dependent upon claim 72, and claims 76-79 are rejected since they are dependent

upon claim 75. By the above amendments, Applicants believe these rejections are now moot.

**102 rejection**

Claims 56-58, 65-67, 71-73, 80-82, 86 and 88 are rejected under 35 U.S.C. 102(e) as being anticipated by West (U.S. Patent No. 6,538,996).

The Examiner states that West “teaches a network (fig. 3 box 340) having a host (fig. 3 box 100 coupled thereto.” The Examiner further states that the “system comprises a bus (fig. 3 connection between fig. 3 box 30 and 110) with a bus device (fig. 3. box 110) coupled thereto, wherein the bus device generates isochronous data and the network operates asynchronously (IP, col. 9 lines 46-52), such that the isochronous data is transported over an asynchronous network (fig. 3 Internet).” The Examiner further states the “system comprises an interface coupling g the network to the bus, the interface and host coordinating to tunnel (fig. 3 box 332) bus device packets over the network between the host and the bus device, wherein the host runs an application that generates the bus device packets (fig. 3 box 540, 590) and relies on an operating system that includes a driver for the bus device (fig. 5 box 544, col. 9 lines 42-43), the driver to issue the bus device packets and redirect the bus device packets to a network stack that encapsulates the bus device packets to create a network packet (fig. 3 box 332) and sends the network packet to the bus device via the interface, the interface to decapsulate the network packet to obtain the bus device packet and forward the bus device packet to the bus device (col. 8 lines 2-5)”. Applicants respectfully disagree.

In independent claims 56 and 71, Applicants recite “a network having a host coupled thereto,” “a bus with a bus device coupled thereto, wherein the bus device generates isochronous data, such that the isochronous data is transported over the asynchronous network;” and “an interface coupling to the network to the bus, the interface and host coordinating to tunnel bus device packets over the network between the host and bus device, wherein [the bus device or the host runs an application that] generates the bus device packets, the bus device packets being isochronous data, ... [a network stack that or the interface to] encapsulate[s] the bus device packets [to create or into] a network packet, ... [the interface to or the host to execute a network driver that] decapsulate[s] the network

packet”. Similarly, independent claims 86 and 88 also “capturing bus events generated on a bus by a bus device that generates isochronous data; encapsulating the captured bus events into a packet associated with a network protocol using the interface; transporting encapsulated bus event over a network that operates asynchronously, such that isochronous data is transported over an asynchronous network; decapsulating the encapsulated bus events, to recreate the bus events at a remote site using information in the header of the packet, wherein capturing, encapsulating, and decapsulating are performed while preserving one or more local bus properties”.

Applicants respectfully submit that West does not teach transmitting isochronous data over an asynchronous network, nor does West teach encapsulating and decapsulating bus device data into network packets, as recited in independent claims 56, 71, 86, and 88. Instead, West teaches a traditional asynchronous network that creates a traditional VPN (col. 8, lns. 34-55). This traditional VPN is different than the bus device packets transmitted isochronously on an asynchronous network of the present invention, in that the traditional VPN creates data packets transmitted asynchronously on the network, allowing a remote computer to be virtually on the LAN. By contrast, in the present invention, the bus device packets allow a computer to use a remote device that normally would have to be connected to the computer by a bus protocol such as 1394 or USB.

Because West does not teach each and every limitation of independent claims 56, 71, 86, and 88, specifically, transmitting isochronous data over an asynchronous network by encapsulating and decapsulating bus device data into network packets, Applicants respectfully submit that West does not anticipate claims 56, 71, 86, and 88.

Accordingly, in view of the foregoing remarks, the Examiner is respectfully requested to reconsider and withdraw the rejections of claims 56, 71, 86, and 88. Since claims 57-58, 65-67, 72-73, and 80-82 depend from and contain the limitations of independent claims 56 and 71, they are distinguishable over the cited reference and patentable in the same manner as claims 56 and 71.

### **103 rejection**

Claim 87 is rejected under 35 U.S.C. 103(a) as being unpatentable over West. Claims 59, 60, 64, 74, 75, and 79 rejected under 35 U.S.C. 103(a) as being unpatentable

over West as applied to claim 56 above, and further in view of Zhang (U.S. Patent No. 6,108,345). Claims 68 and 83 are rejected under 35 U.S.C. 103(a) as being unpatentable over West as applied to claim 56 above, and further in view of Rosenberg (U.S. Patent No. 6,353,427). Claims 62, 69, 77, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of West and Zhang as applied to claim 60 above, and further in view of Gerszberg (U.S. Patent No. 6,307,839). Claims 63, 70, 78, and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of West and Zhang as applied to claim 60 above, and further in view of Hudecek (U.S. Patent No. 6,289,207). Applicants respectfully disagree.

As above, Applicants respectfully submit that West does not teach, disclose or suggest transmitting isochronous data over an asynchronous network by encapsulating and decapsulating bus device data into network packets, as recited in independent claims 56, 71, 86, and 88. Instead, West teaches a traditional VPN that creates data packets transmitted asynchronously on the network, allowing a remote computer to be virtually on the LAN.

Additionally, Applicants respectfully submit that Zhang also does not teach, disclose or suggest transmitting isochronous data over an asynchronous network by encapsulating and decapsulating bus device data into network packets, as recited in independent claims 56, 71, 86, and 88. Instead, Zhang is directed to creating a traditional network using a device that includes multiple channels and a bus to connect two devices to another (see SUMMARY section).

Similarly, Applicants respectfully submit that Rosenberg also does not teach, disclose or suggest transmitting isochronous data over an asynchronous network by encapsulating and decapsulating bus device data into network packets, as recited in independent claims 56, 71, 86, and 88. Instead, Rosenberg is directed to a simpler, lower cost force feedback device with a linear actuator (see SUMMARY section).

Likewise, Applicants respectfully submit that Gerszberg also does not teach, disclose or suggest transmitting isochronous data over an asynchronous network by encapsulating and decapsulating bus device data into network packets, as is disclosed in independent claims 56, 71, 86, and 88. Instead, Gerszberg is directed to a system of

optimizing and increasing bandwidth in a voice and data network (see SUMMARY section).

Finally, Applicants respectfully submit that Hudecek also does not teach, disclose or suggest transmitting isochronous data over an asynchronous network by encapsulating and decapsulating bus device data into network packets, as is disclosed in independent claims 56, 71, 86, and 88. Instead, Hudecek is directed to a radio receiver having a display and a control system (see SUMMARY section).

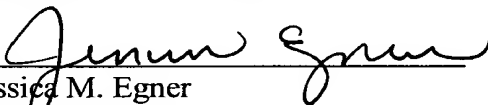
Because neither West, Zhang, Rosenberg, Gerszberg, nor Hudecek teach, disclose or suggest suggest transmitting isochronous data over an asynchronous network by encapsulating and decapsulating bus device data into network packets, as recited in independent claims 56, 71, 86, and 88, no combination of West, Zhang, Rosenberg, Gerszberg, and Hudecek teach or suggest each and every limitation of claims 56, 71, 86, and 88. Thus, Applicants respectfully submit that neither West, Zhang, Rosenberg, Gerszberg, nor Hudecek renders claims 56, 71, 86, and 88 unpatentable.

Accordingly, in view of the foregoing remarks, the Office is respectfully requested to reconsider and withdraw the rejections of claims 56, 71, 86, and 88. Additionally, since claims 59, 60, 62-64, 68, and 70 depend from and contain the limitations of claim 56, claims 74-75, 77-79, and 83-85 depend from and contain the limitations of claim 71, they are distinguishable over the cited references and patentable in the same manner as claims 56, 71, 86, and 88.

**Conclusion**

In view of the foregoing, it is submitted that the present application is in condition for allowance and a notice to that effect is respectfully requested. However, if any issue remains after considering this response, the Examiner is invited to call the undersigned to expedite the prosecution and work out any such issue by telephone.

Respectfully submitted,

  
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